BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

DIVISION: BYATARAYANAPURA

SUB DIVISION: VIDYARANYAPURA

Name of Work: Estimate for Improvements to Roads and Drains at BEL Layout 3rd Block and Balance reaches of NTI Layout in Ward No. 09 (Vidyaranyapura).

Job Code:

Estimated Cost: Rs: 22.00 Lakhs

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of the work: **Estimate for Improvements to Roads and Drains at BEL Layout 3rd Block and Balance reaches of NTI Layout in Ward No. 09 (Vidyaranyapura).**

							Estimate Cost:		2200000.00
Sl. No	Description	Unit	No.	L	B	D	Qty	Rate	Amount
1	KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 **Page No. 143 / Item No. 19.1, PWD SR 2018-19**	Cum							
	For Drain Desilting								
	12th Cross BEL Layout		2	229.00	0.45	0.45	92.75		
	Berm Cutting								
	12th Cross BEL Layout		2	229.00	0.90	0.20	82.44		
	Culverts		3	5.00	1.80	1.05	28.35		
							203.54	243.88	**49638.00**
	Basic Rate	130.00							
	Area Weightage @6%	7.80							
	Total	**137.80**							
	Add loading and unloading Charges **It No 17.1 KSRRB M 100-1**	68.00							
	Average weight of earth 1.28 tonne / kg for 11.90 Km = 1.28 T X 11.90Km X 2.5 / km= 38.08	38.08							
		243.88							
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) **Page No. 27 / Item No. 5.33 PWD SR 2018-19**	Sqm							
	For Drain								
	12th Cross BEL Layout		2	229.00		1.35	618.30		
							618.30		
	Consider 50%						-309.15		
							309.15	111.30	**34408.00**
	Basic Rate	105.00							
	Area Weightage @ 6%	6.30							
	Total	**111.30**							
3	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete **Page No. 27 / Item No. 5.31.1 PWD SR 2018-19**	Sqm							
	Damaged Slabs & Missing Slabs 10% of total Qty			Vide Item No. 2			63.68		
	Basic Rate	700.00					**63.68**	742.00	**47254.00**
	Area Weightage @ 6%	42.00							
	Total	**742.00**							
4	KSRRB M2100-10. Providing and laying **Plain cement concrete of mix 1:3:6 with with OPC cement @ 220kgs, with crushed 40mm** and down size graded granite metal coarse aggregates @0.84cum and fine aggregates @ 0.56cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days complete as per specifications MORTH Specification No. 2100 **Item No. 27.18 Page No. 222. PWD SR 2018-19**	cum							
	Culverts		3	5.00	1.80	0.15	4.05		
	Basic Rate	5115.00					**4.05**	5421.90	**21959.00**
	Area Weightage @ 6%	306.90							

Sl. No	Description	Unit	No.	L	B	D	Qty	Rate	Amount
	Total	**5421.90**							
5	Prov...ng and constructing granite / trap / basalt size stone masonry in **basement with cement mortar 1:6, edges of stones** chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. **Page No. 255, Item No. 34.9, PWD SR 2018-19**	cum							
	Culverts		3x2	5.00	0.60	0.45	8.10		
			3x2	5.00	0.45	0.45	6.08		
	Basic Rate	5483.00					**14.18**	5811.98	**82385.00**
	Area Weightage @ 6%	328.98							
	Total	**5811.98**							
6	KSRB 5-14 : Providing and constructing load bearing wall with solid concrete blocks of size 400x150x200 mm having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 4.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4 **Page No. 27 / Item No. 5.26.2, PWD SR 2018-19**	Sqm							
	12th Cross BEL Layout		2x2	229.00		0.40	366.40		
	Basic Rate	924.00					**366.40**	979.44	**358867.00**
	Area Weightage @ 6%	55.44							
	Total	**979.44**							
7	Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, for coping. Including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page. No. 255 / Item No.34.11 of PWD SR 2018-19**	Cum							
	Vent Concrete								
	12th Cross BEL Layout		2	55.00	0.45	0.10	4.95		
	Coping Concrete								
	12th Cross BEL Layout		2x2	229.00	0.20	0.10	18.32		
	Culverts								
	Coping Concrete		3	5.00	1.50	0.10	2.25		
	Ramp		3x2	5.00	1.00	0.15	4.50		
	Basic Rate	5283.00					**30.02**	5599.98	**168111.00**
	Area Weightage @ 6%	316.98							
	Total	**5599.98**							
8	Providing **precast slab of 100 mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge- Data rate.	Sqm							
	12th Cross BEL Layout		2	90.00	0.90		162.00		
							162.00	2337.00	**378594.00**

Sl. No	Description	Unit	No.	L	B	D	Qty	Rate	Amount
9	Providing **precast slab of 250mm thick** including cost of all materials, labour, curing, transportation, loading unlo ng, etc.,complete as per the direction of engineer in charge - (Data rate Approved).	Sqm							
			9x3	1.50	0.60		24.30		
							24.30	5418.00	**131657.00**
10	KSRRB 300-49. Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by manual means without disturbing the base and stacking of the debris materials including cost of all labour charges complete as per specifications. MORTH / Chapter 3 **Page No. 146 / Item No. 19.55 PWD SR 2018-19**	Sqm							
	12th Cross BEL Layout		1	229.00	4.50		1030.50		
	Total Qty						**1030.50**		
	Consider 25% of the Total Qty						**257.63**	95.40	**24577.00**
	Basic Rate	90.00							
	Area Weightage @ 6%	5.40							
	Total	**95.40**							
11	KSRRB M400- Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 **Page No. 155 / Item No. 20.18, PWD SR 2018-19**	Cum							
	12th Cross BEL Layout		1	229.00	4.50	0.23	237.02		
	Total Qty						**237.02**		
	Consider 25% of the Total Qty						**59.25**	2001.28	**118583.00**
	Basic Rate	1888.00							
	Area Weightage @ 6%	113.28							
	Total	**2001.28**							
12	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications. MORTH Specification No. 502 **Page No. 158 / Item No. 21.6, PWD SR 2018-19**	Sqm							
	12th Cross BEL Layout		1	229.00	4.50		1030.50		
	Total Qty						**1030.50**		
	Consider 25% of the Total Qty						**257.63**	33.92	**8739.00**
	Revised Rate as on 02.11.2021 Basic Rate	32.00							
	Area Weightage @ 6%	1.92							
	Total	**33.92**							

Sl. No	Description	Unit	No.	L	B	D	Qty	Rate	Amount
13	KSRRB 500-11. Providing and laying **bituminous macadam** on prepared surface with crushed coarse aggregates as per design mix formula for base / binding course including loading of aggregates with F.E. loader, hot mixing of stone aggregates and bitumen in hot mix plant, transporting the mixd material in tipper to paver and laying mixed materials with paver finisher to the required level and grade, rolling by power roller to achieve the desired density, but excluding cost of primer / tack coat including lead, lift and cost of all materials, labour, HOM of machineries complete as per specifications. MORTH /Chapter 5 - using **40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 3.3 % VG-30 Bitumen Page No. 159 / Item No. 21.11.6, PWD SR 2018-19**	Cum							
	12th Cross BEL Layout		1	229.00	4.50	0.05	51.53		
	Total Qty						**51.53**		
	Consider 25% of the Total Qty						**12.88**	6767.04	**87168.00**
	Revised Rate as on 02.11.2021 Basic Rate	6384.00							
	Area Weightage @ 6%	383.04							
	Total	**6767.04**							
14	KSRRB 500-2. Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification clause 501 **Page No. 158 / Item No. 21.2, PWD SR 2018-19**	Sqm							
	12th Cross BEL Layout		1	229.00	4.50		1030.50		
	Basic Rate	5.00					**1030.50**	5.30	**5462.00**
	Area Weightage @ 6%	0.30							
	Total	**5.30**							
15	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH/Chapter 5 **Page No. 158 / Item No. 21.7 PWD SR 2018-19**	Sqm							
			Qty Vide Item No. 12				1030.50		
	Revised Rate as on 02.11.2021 Basic Rate	12.00					**1030.50**	12.72	**13108.00**
	Area Weightage @ 6%	0.72							
	Total	**12.72**							
16	KSRRB M500-19. Providing and laying **bituminous concrete 40 mm thick** with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 500.9 complete in all respects complete as per specifications. MORTH Specification No. 509 - **using 40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 45 mm) with 6 % VG-30 Bitumen Page No. 162 / Item No. 21.22.6, PWD SR 2018-19**	Cum							
	12th Cross BEL Layout		1	229.00	4.50	0.040	41.22		
	Revised Rate as on 02.11.2021 Basic Rate	9435.00					**41.22**	10001.10	**412245.00**
	Area Weightage @ 6%	566.10							
	Total	**10001.10**							

Sl. No	Description	Unit	No.	L	B	D	Qty	Rate	Amount
17	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Luminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 **Page No. 182, Item No. 24.15 PWD SR 2018-19**	Sqm							
	12th Cross BEL Layout		2	229.00	0.10		45.80		
	Revised Basic Rate	429.00					**45.80**	454.74	**20827.00**
	Area Weightage @ 6%	25.74							
	Total	**454.74**							
	Sub Total								**1963582.00**
	GST @ 12%								**235630.00**
	Miscellaneous and other Charges	L/S							**788.00**
								Total	**2200000.00**
Rupees Twenty Two Lakh(s) Only									

CERTIFICATE:

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per PWD SR of 2018-19.
3 This work included under 2021-21 POW Grants.
4 The provisions were made in this estimate are necessary and adequate.
5 This works come under B.B.M.P. limits.

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Vidyaranyapura Sub Division

Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division
15/11

Administrative Approval
Accorded For 22.00 lakhs
Head of A/C Pow (P-3726)
CER NO : 78 Dt: 13/12/2021
TA CE (YUK)

Technical Sanction
Accorded For 22.00 lakhs
Head of A/C Pow (P-3726)
CER NO : 82 Dt: 13/12/2021

Name of work: Improvements to Roads and Drains at BEL Layout 3rd Block and Balance reaches of NTI Layout in Ward No. 09 (Vidyaranyapura).

INDEX

Asphalt Road

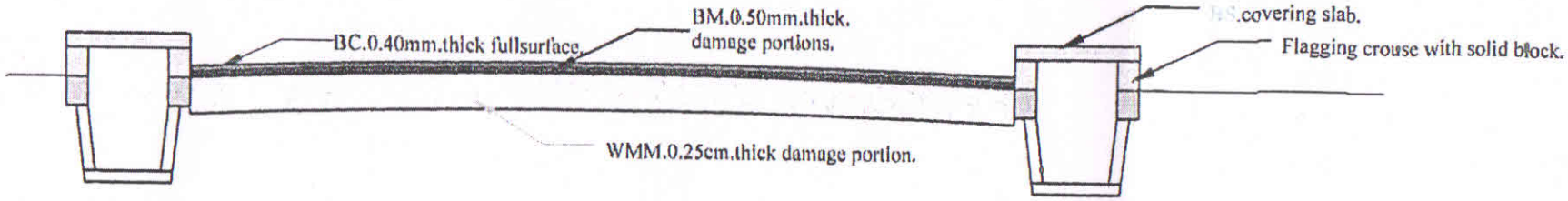
Flagging covering drain

– Culverts

Assistant Engineer
Ward No. 09

Assistant Executive Engineer
Vidyaranyapura Sub Division

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97



CROSS SECTION OF ASPHALT ROAD.

ASSISTANT ENGINEER.

ASSISTANT EXECUTIVE ENGINEER.

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97

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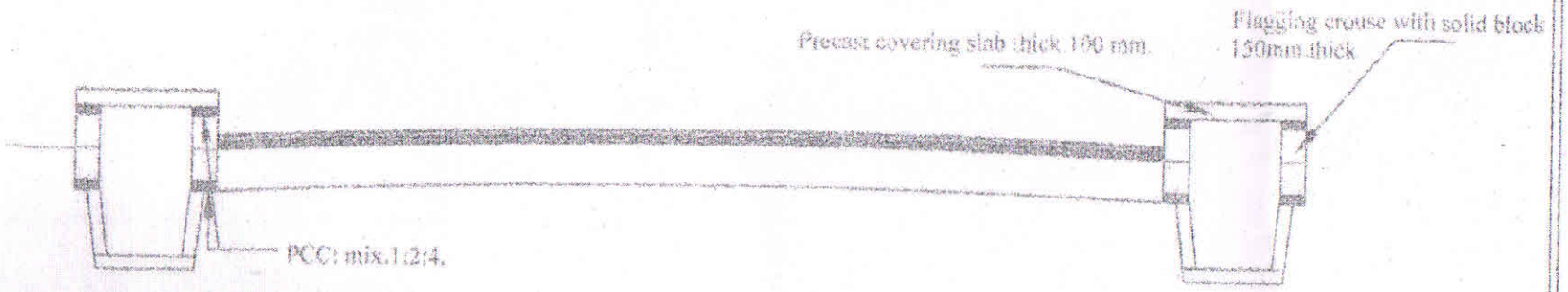
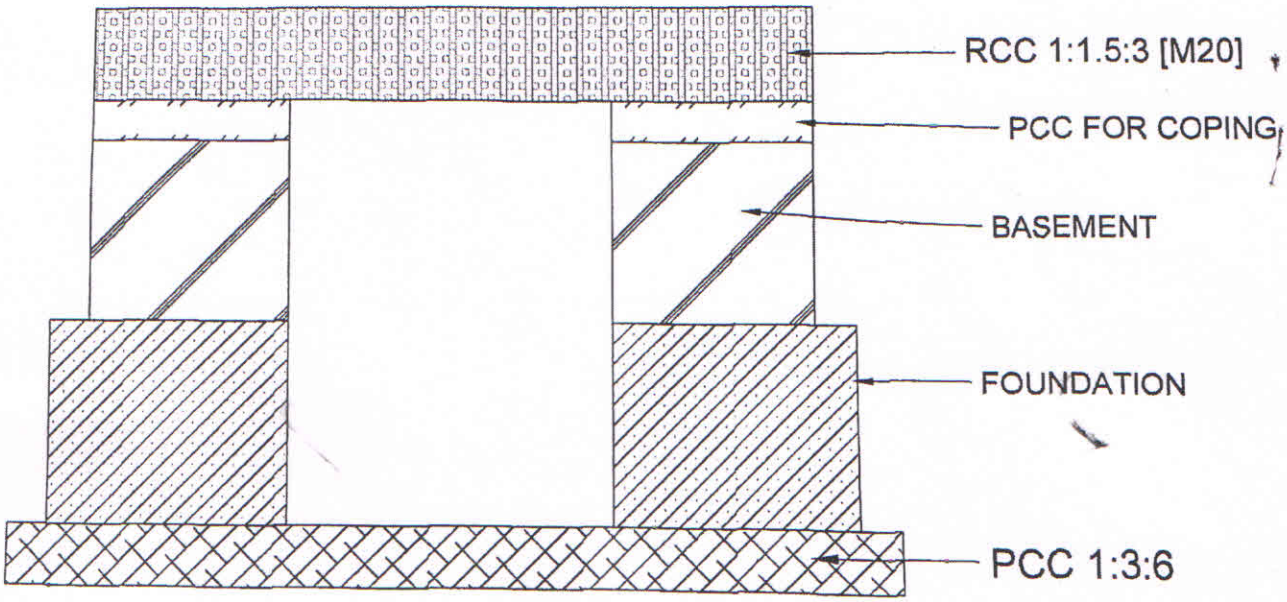


CROSS SECTION OF SOLID BLOCK FLAGGING COURCE OVER B S SLAB DRAIN.

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97



CROSS SECTION FOR CULVERT

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97

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152 - BYATARAYANAPURA AC
WARD NAME : 9 - VIDYARANYAPURA

Assistant Executive Engineer
Vidyaranyapura Sub Division
BBMP, Bangalore - 97